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Abstract Of The Disclosure

STABILE INVERT FUEL EMULSION COMPOSITIONS AND METHOD
OF MAKING SAME

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Method for producing high stability aqueous fuel emulsions with an oil or fuel continuous phase. The method provides for selectively combining prescribed quantities of diesel fuel, purified water, alcohol, and an additive package including a primary surfactant, a block copolymer, and a polymeric dispersant. The fuel emulsion is made by blending the diesel fuel and additive package, adding purified water to the fuel/additive mixture, aging the composition, and passing the aged composition through a high shear mixer. The optimum stability in the oil continuous fuel emulsion is achieved by using a high shear mixing device, such as a Ross X-series Mixer Emulsifier, which results in the final fuel emulsion having a droplet size distribution of about 1 micron or less.

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